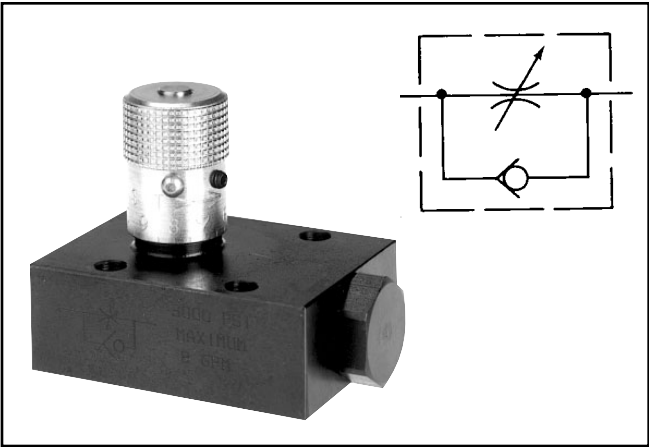


General Description

Series FS flow control valves provide precise control of flow and shutoff in one direction, and automatically permit full flow in the opposite direction.

A two-step needle allows fine adjustment at low flow by using the first three turns of the adjusting knob; the next three turns open the valve to full flow, and also provide standard throttling adjustments.



Features

- The exclusive “Colorflow” color-band reference scale on the valve stem is a great convenience and time-saver in setting the valve originally and in returning it to any previous setting.
- A simple set screw locks the valve on any desired setting.
- Stainless steel poppets are standard.

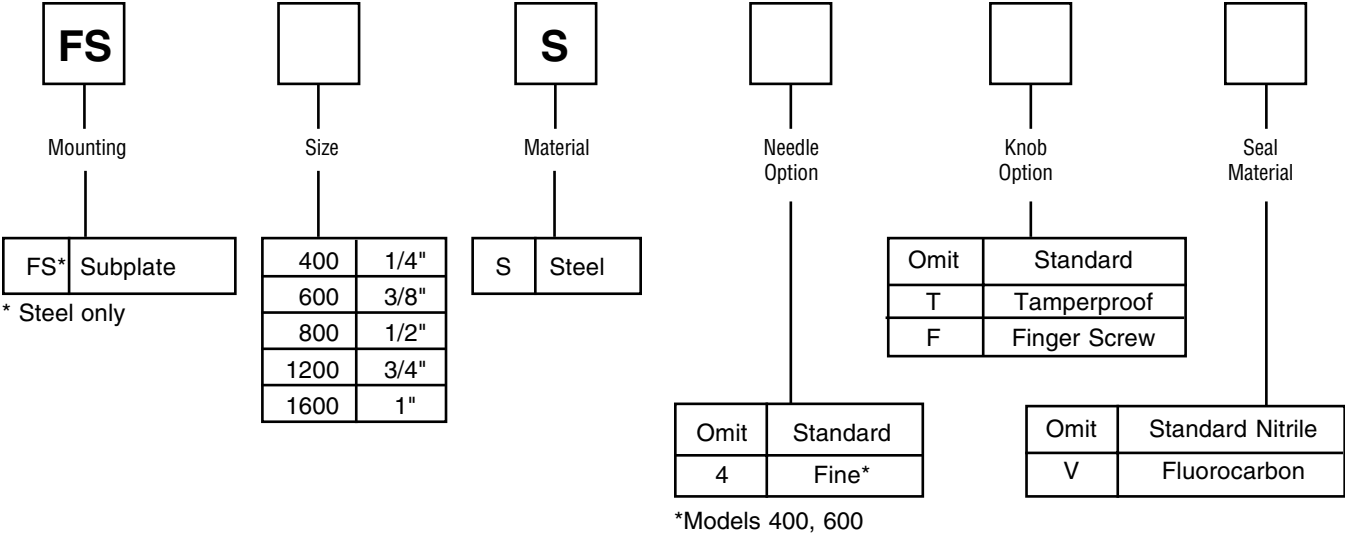
Specifications

Maximum Operating Pressure	210 Bar (3000 PSI)
Nominal Cracking Pressure	0.3 Bar (5 PSI) For return check poppet
Poppet Style	Solid metal poppet, steel
Needles	Standard needle on all models except: Fine needle option on FS400 and FS600

Flow Data

Model Number	Free Flow Rate, Max. GPM (L/M)	Free Flow Orifice Area in ²	Free Flow C _v	Orifice Area, Effective Control Flow, in ²	Effective Control Flow C _v	Port Size
FS400	5 (19)	0.068	1.56	.0194	.433	1/4
FS600	8 (30)	0.099	2.27	.0344	.787	3/8
FS800	15 (57)	0.224	5.11	.0427	.976	1/2
FS1200	25 (95)	0.348	7.95	.1080	2.470	3/4
FS1600	40 (151)	0.453	10.35	.2300	5.250	1



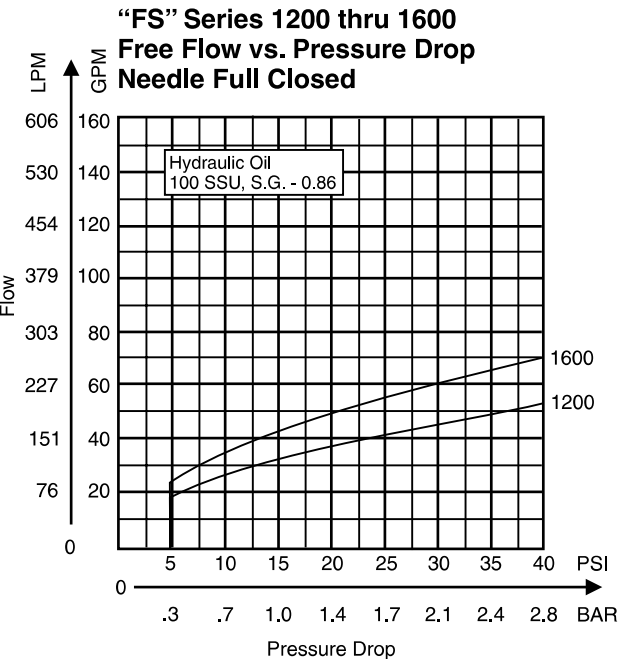
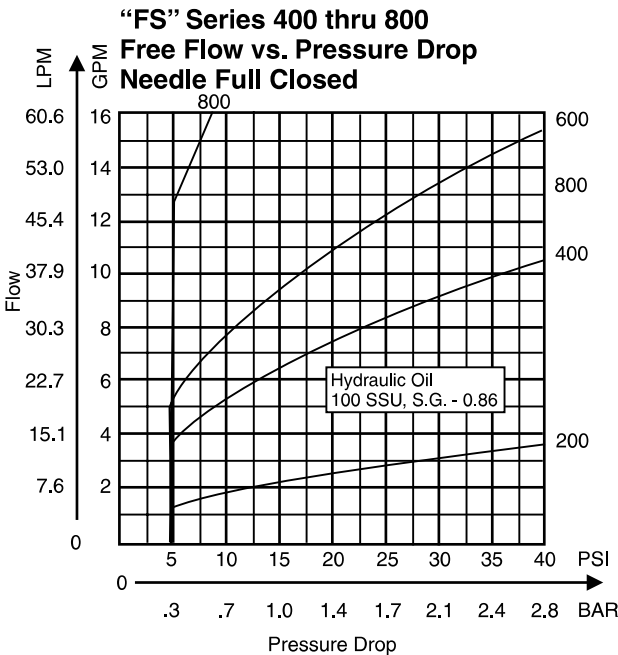
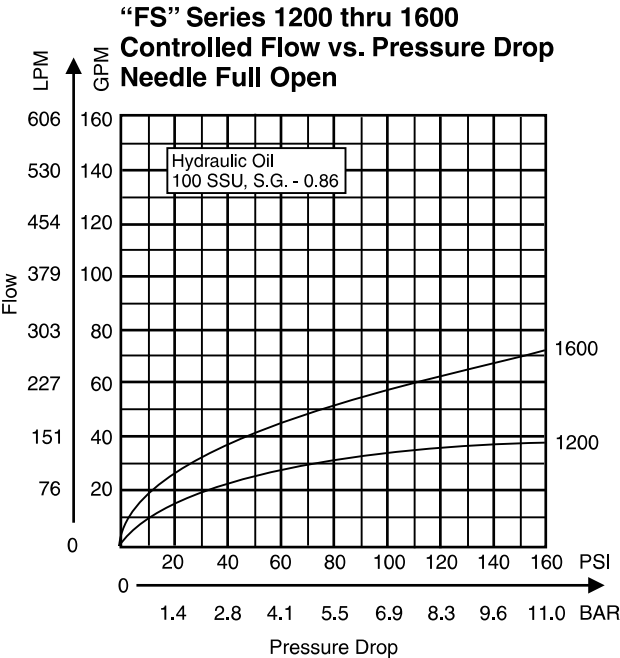
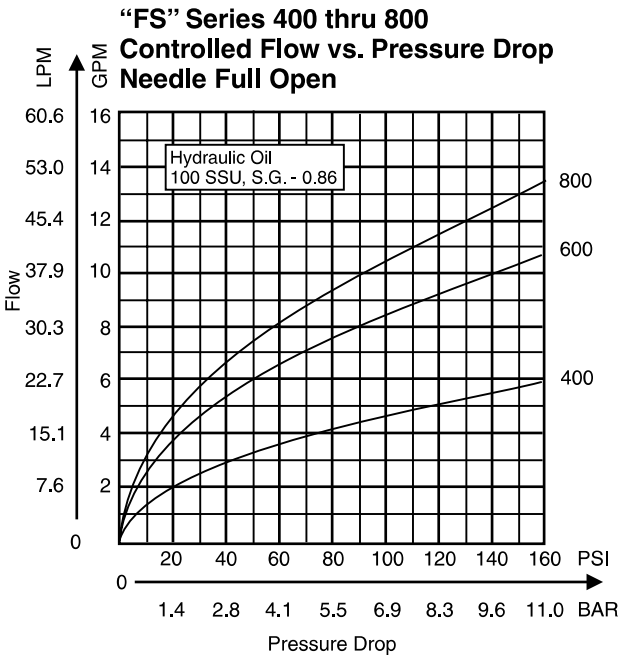


Bolt Kits To order bolt kits, specify bolt kit number

Valve	Bolt Kit	Bolt Specification*	Bolt Torque
FS400S	BK01	1/4-20 x 1-1/4"	13 Ft.-Lbs.
FS600S	BK02	1/4-20 x 1-1/2"	13 Ft.-Lbs.
FS800S	BK04	1/4-20 x 1-3/4"	13 Ft.-Lbs.
FS1200S	BK08	5/16-18 x 2-1/4"	27 Ft.-Lbs.
FS1600S	BK10	5/16-18 x 2-1/2"	27 Ft.-Lbs.

*Use SAE Grade 8 or Better.

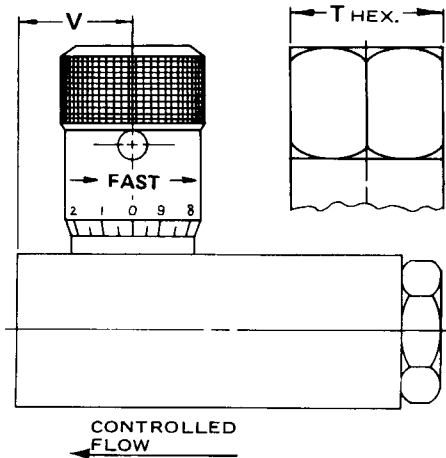
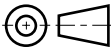




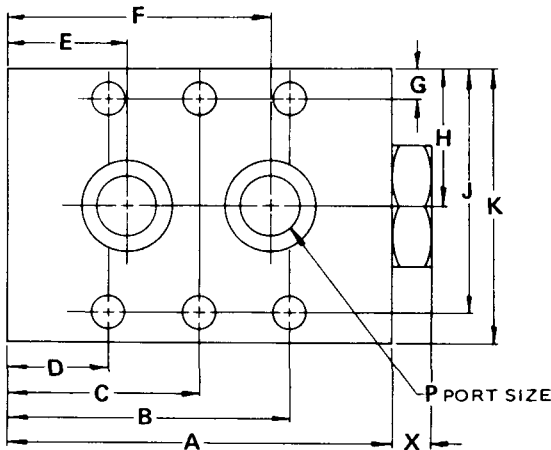
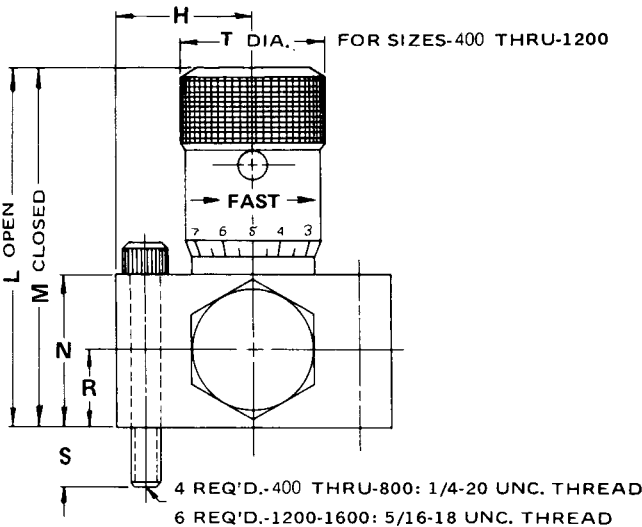
Millimeter equivalents for inch dimensions are shown in (**)

Models FS400 through FS 1600

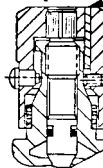
Subplate mounted Flow Control Valves



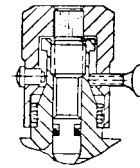
NOTE:
HEX KNOB
IS STANDARD
ON 1600 SIZE.



Knob Options



Tamperproof
Option (Code "T")
permanently locks
knob at desired
flow setting by
installing a pin
in predrilled hole.



Finger screw
option (Code "F")
provides this
thumbscrew in
place of set screw.

	Valve Model				
	FS400	FS600	FS800	FS1200	FS1600
A	2.50 (63.5)	2.75 (69.9)	3.19 (81.0)	4.09 (103.9)	5.00 (127.0)
B	1.94 (49.3)	2.03 (51.6)	2.34 (59.4)	3.55 (90.2)	4.38 (111.3)
C	—	—	—	2.05 (52.1)	2.50 (63.5)
D	.56 (14.2)	.72 (18.3)	.84 (21.3)	.55 (14.0)	.62 (15.7)
E	.75 (19.1)	.88 (22.4)	1.00 (25.4)	.99 (25.1)	1.38 (35.1)
F	1.75 (44.5)	1.88 (47.8)	2.19 (55.6)	3.12 (79.2)	3.62 (92.0)
G	.22 (5.6)	.25 (6.4)	.25 (6.4)	.31 (7.9)	.31 (7.9)
H	.88 (22.4)	1.00 (25.4)	1.12 (28.4)	1.38 (35.1)	1.50 (38.1)
J	1.53 (38.9)	1.75 (44.5)	2.00 (50.8)	2.44 (62.0)	2.69 (68.3)
K	1.75 (44.5)	2.00 (50.8)	2.25 (57.2)	2.75 (69.9)	3.00 (76.2)
L	2.21 (56.1)	2.65 (67.3)	3.29 (83.6)	4.35 (110.5)	5.76 (146.3)
M	2.01 (51.1)	2.40 (61.0)	3.00 (76.2)	3.76 (95.5)	5.10 (129.5)
N	.87 (22.1)	1.00 (25.4)	1.25 (31.8)	1.75 (44.5)	2.00 (50.8)
P	.28 (7.1)	.41 (10.4)	.47 (11.9)	.66 (16.8)	.88 (22.4)
R	.43 (10.9)	.50 (12.7)	.62 (15.7)	.87 (22.1)	1.00 (25.4)
S	.38 (9.7)	.50 (12.7)	.50 (12.7)	.50 (12.7)	.50 (12.7)
T	.81 (20.6)	1.00 (25.4)	1.18 (30.0)	1.37 (34.8)	1.87 (47.5)
V	.84 (21.3)	1.00 (25.4)	1.21 (30.7)	1.52 (38.6)	1.78 (45.2)
X	.31 (7.9)	.32 (8.1)	.32 (8.1)	.42 (10.7)	.42 (10.7)

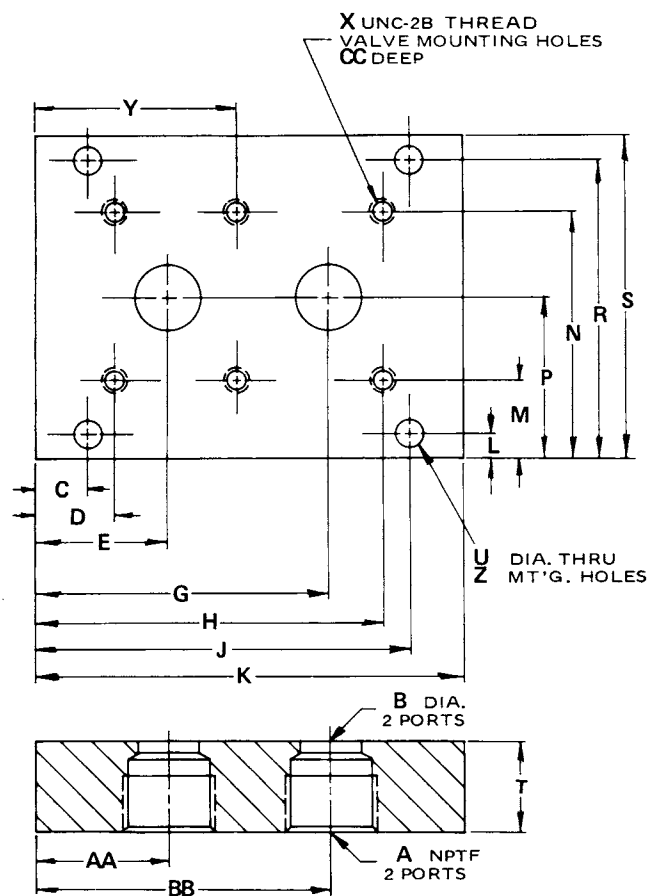
Millimeter equivalents for inch dimensions are shown in (**)

Subplate

Models FS400 through FS1600

Reference Data Only

(Subplates are not available)



	Valve Numbers				
	FS 400	FS 600	FS 800	FS 1200	FS 1600
A	1/4"	3/8"	1/2"	3/4"	1"
B	.281 (7.1)	.406 (10.3)	.469 (11.9)	.656 (16.7)	.875 (22.2)
C	.375 (9.5)	.375 (9.5)	.500 (12.7)	.344 (8.7)	.344 (8.7)
D	.562 (14.3)	.843 (21.4)	.875 (22.2)	.750 (19.1)	1.125 (28.6)
E	.750 (19.1)	1.000 (25.4)	1.031 (26.2)	1.188 (30.2)	1.875 (47.6)
G	1.750 (44.5)	2.000 (50.8)	2.219 (56.4)	3.312 (84.1)	4.125 (104.8)
H	1.938 (49.2)	2.156 (54.8)	2.375 (60.3)	3.750 (95.3)	4.875 (123.8)
J	2.125 (54.0)	2.625 (66.7)	2.750 (69.9)	4.156 (105.6)	5.656 (143.7)
K	2.50 (63.5)	3.00 (76.2)	3.25 (82.6)	4.50 (114.3)	6.00 (152.4)
L	.344 (8.7)	.250 (6.4)	.438 (11.1)	.344 (8.7)	.344 (8.7)
M	.844 (21.4)	.750 (19.1)	1.125 (28.6)	1.062 (27.0)	1.062 (27.0)
N	2.156 (54.8)	2.250 (57.2)	2.875 (73.0)	3.188 (81.0)	3.438 (87.3)
P	1.500 (38.1)	1.500 (38.1)	2.000 (80.8)	2.125 (54.0)	2.250 (57.2)
R	2.656 (67.5)	2.750 (69.9)	3.562 (90.5)	3.906 (99.2)	4.156 (105.6)
S	3.00 (76.2)	3.00 (76.2)	4.00 (101.6)	4.25 (108.0)	4.50 (114.3)
T	1.125 (28.6)	1.125 (28.6)	1.125 (28.6)	1.125 (28.6)	1.250 (31.8)
U	.281 (7.1)	.281 (7.1)	.359 (9.1)	.422 (10.7)	.422 (10.7)
X	1/4-20	1/4-20	1/4-20	5/16-18	5/16-18
Y	—	—	—	2.250 (57.2)	3.000 (76.2)
Z	4	4	4	6	6
AA	.750 (19.1)	1.000 (25.4)	1.031 (26.2)	1.188 (30.2)	1.875 (47.6)
BB	1.750 (44.5)	2.000 (50.8)	2.219 (56.4)	3.312 (84.5)	4.125 (104.8)
CC	.505 (12.8)	.525 (13.3)	.525 (13.3)	.525 (13.3)	.525 (13.3)